

## **GUIDELINES FOR THE PREPARATION OF PRODUCT ANALYSIS REPORTS FOR LIQUID PROPELLANTS**

### **GENERAL INSTRUCTIONS**

Sept 2002

These instructions are designed for use as a guide in preparing/formatting liquid propellant analysis reports (including gases and cryogenic liquids). To facilitate scanning or imaging, only computer generated or typed test reports are acceptable, there should be no handwritten entries. A template of the standardized test report format is provided in Figure I. Table I includes the test codes used in this standard report format that will be incorporated into future Electronic Data Interchange (EDI) transmissions of test result data.

Each report should be tailored to include only those rows of information that are applicable to the specific product being tested and the methods used to evaluate each property. Select only those methods authorized by the product specification unless otherwise stated in the contract. The code used should be limited to the actual test method used for a particular analysis. If a test code does not appear for a specification or contract approved method, contact the Defense Energy Support Center (DESC) at (210) 925-2488.

### **DETAILED INSTRUCTIONS FOR THE STANDARD TEST REPORT FORMAT (FIGURE 1)**

1. Items appearing in *italics* inside brackets are meant to be short descriptions of the data being requested and should be replaced with the appropriate data.
2. The test method should be the paragraph cited in the specification for that method or the ASTM procedure cited in the product specification.
3. Test codes are unique to each test method of each specification or contract clause and must be included on the report.

*[Name of laboratory performing analysis]*  
*[Address of laboratory performing analysis]*  
*[phone, fax, email of laboratory performing analysis]*

**Report of Analysis**  
*[name of product]*

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Report Date: <i>[date of certified report]</i>	Report Number: <i>[unique lab report number]</i>
Manufacturer: <i>[name of manufacturer]</i>	Specification: <i>[spec with revision and amendment]</i>
<i>[address of manufacturer]</i>	Product: <i>[name of product]</i>
<i>[address of manufacturer]</i>	Type: <i>[type or grade of product]</i>
Submitted by: <i>[name of submitter]</i>	NSN: <i>[national stock number]</i>
<i>[address of submitter]</i>	Contract: <i>[contract number]</i>
<i>[address of submitter]</i>	Lot: <i>[batch or lot number]</i>
Date Sampled: <i>[sample date]</i>	
Sample Origin: <i>[tank no., drum no., etc.]</i>	
Sample No.: <i>[submitters sample identification]</i>	Reason for submission: <i>[reason for performing analysis]</i>

CODE	METHOD	TEST	UNITS	MIN	MAX	RESULTS
<i>[test code]</i>	<i>[test method]</i>	<i>[test description]</i>	<i>[units]</i>		<i>[spec limits]</i>	<i>[test result]</i>
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Remarks: *[include any remarks concerning the analysis]*

*[Signature of the certifying official]*  
*[Signature block of certifying official]*

**Table I**

<b>Test Codes</b>	<b>Test Description</b>	<b>Spec/Paragraph</b>
010A	Saybolt Color	ASTM D-156
010B	Saybolt Color (Spectro)	ASTM D-6045
155	JP-10 - DCPD	MIL-P-87107C, APP A
156	JP-10 - Other Hydrocarbons	MIL-P-87107C, APP A
1009	PF-1 – DCPD & Methylcyclohexane Content	MIL-DTL-87173B, APP A
1009A	PF-1 – DCPD & Methylcyclohexane Content	MIL-DTL-87173B, APP C
1010	PF-1 – Other Hydrocarbons	MIL-DTL-87173B, App A
1010A	PF-1 – Other Hydrocarbons	MIL-DTL-87173B, App C
220B	Flash Point P-M	ASTM D-93
220C	Flash Point – Seta Method A	ASTM D-3828
230A	Density @ 15°C – Hydrom	ASTM D-1298
230B	Density @ 15°C – Digital	ASTM D-4052
300A	Freezing Point	ASTM D-2386
310	Viscosity	ASTM D-445
400A	Net Heat by Bomb	ASTM D-240
400H	Net Heat by Bomb	ASTM D-2382
600B	JFTOT @ 260 °C	ASTM D-3241
601	Pressure Change	ASTM D-3241
602	Visual Rating	ASTM D-3241
600E	JFTOT @ 300 °C	ASTM D-3241
601	Pressure Change	ASTM D-3241
602	Visual Rating	ASTM D-3241
710	Existent Gum	ASTM D-381
720A	Particulate Count	ASTM D-2276
720B	Particulate Count	ASTM D-5452
830A	FSII	ASTM D-5006
830B	FSII	FED TM5327
1011	LN, Grade B, Purity	MIL-PRF-27401D, Para 4.4.1
1012	LN, Grade B, Impurities	MIL-PRF-27401D, Table I, Note d
1013	LN, Grade B Water	MIL-PRF-27401D, Para 4.4.2
1014	LN, Grade B, Total Hydrocarbons as Methane	MIL-PRF-27401D, Para 4.4.2
1015	LN, Grade B, Oxygen	MIL-PRF-27401D, Para 4.4.2
1016	LN, Grade B, Hydrogen	MIL-PRF-27401D, Para 4.4.2
1017	LN, Grade B, Argon	MIL-PRF-27401D, Para 4.4.2
1018	LN, Grade B, Carbon Dioxide	MIL-PRF-27401D, Para 4.4.2
1019	LN, Grade B, Carbon Monoxide	MIL-PRF-27401D, Para 4.4.2
1020	LN, Grade B, Particulate	MIL-PRF-27401D, Para 4.4.3